REMARKS

Reconsideration of this application, as amended, is respectfully requested.

ALLOWABLE SUBJECT MATTER

The Examiner's indication of the allowability of the subject matter of claims 4-8, 10-13, 16-19 and 21-24 is respectfully acknowledged.

THE CLAIMS

Claims 1-24 have been canceled, without prejudice, and new claims 25-48 have been added.

New independent claim 25 corresponds to claim 1 combined with subject matter previously recited in claim 5 (and claims 7, 10, 12, 16, 18, 21 and 23).

And new claims 26-48 correspond to claims 2-24 rewritten in better U.S. form, except that claims 29, 31, 34, 36, 40, 42, 45 and 47 do not recite the subject matter previously recited in corresponding (now canceled) claims 5, 7, 10, 12, 16, 18, 21 and 23 that is now recited in new independent claim 25.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

Claim 1 was rejected under 35 USC 102 as being anticipated by USP 6,325,044 ("Chen et al"); claims 2 and 3 were rejected under 35 USC 103 as being obvious in view of the combination of Chen and USP 4,379,332 ("Busser et al"); and claims 9, 14, 15 and 20 were rejected under 35 USC 103 as being obvious in view of the combination of Chen, Busser and USP 5,709,196 ("Coleman et al"). These rejections, however, are respectfully traversed.

On page 2 of the Office Action, the Examiner asserted that (now canceled) claim 1 was anticipated by Chen et al. It is respectfully submitted, however, the Examiner has not referred to any particular section of Chen et al as disclosing the features of the present invention previously recited in claim 1 (and now recited in new independent claim 25).

According to the present invention as recited in new independent claim 25, a diesel engine is provided which comprises fuel injection timing control means for controlling a fuel injection timing of a fuel, wherein the fuel injection timing control means advances the fuel injection timing for a predetermined period of time when an engine load on the diesel engine is shifted to a low load from a high load and decreases to a predetermined level. That is, according to the present invention as recited in new independent claim 25, the fuel

injection timing is advanced in response to a decrease in the engine load to a predetermined level.

On page 3 of the Office Action, the Examiner did refer to column 4, lines 25-25 of Chen et al as disclosing "fuel injection timing control means" as set forth in (now canceled) claim 2. It is respectfully submitted, however, that Chen et al discloses that the fuel injection timing is varied in response to an acceleration or load ascending transient mode. Indeed, Chen et al discloses at column 4, lines 28-30 that a steady-state injection timing schedule is applied if acceleration or a load ascending transient mode is not detected.

Thus, it is respectfully submitted that Chen et al clearly does not at all disclose, teach or suggest the feature of the present invention as recited in new independent claim 25 whereby the fuel injection timing control means advances the fuel injection timing for a predetermined period of time when an engine load on the diesel engine is shifted to a low load from a high load and decreases to a predetermined level.

In addition, it is noted that Busser et al has merely been cited for the disclosure of temperature sensing means. However, it is respectfully submitted that Busser et al simply discloses that the air temperature is of primary concern while the engine is being started. And it is respectfully submitted that the combination of Chen et al and Busser et al does not disclose,

teach or suggest the feature of the present invention as recited in claim 26 whereby the fuel injection timing control means controls the fuel injection timing based on a detection signal from the charge air temperature detecting means, or the feature of the present invention as recited in claims 27 and 38 whereby reduced cylinder operation control means stop fuel supply to at least one of the combustion chambers when the engine load decreases to the predetermined level.

Still further, it is noted that Coleman et al has merely been cited for the disclosure of water emulsion fuel.

Accordingly, it is respectfully submitted that even if Chen et al, Brusser et al and Coleman et al were combinable in the manner suggested by the Examiner, the features of the present invention as recited in new independent claim 25 would still not be achieved or rendered obvious.

In view of the foregoing, it is respectfully submitted that new independent claim 25 and each of new claims 26-48 depending therefrom all clearly patentably distinguish over the cited references, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

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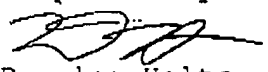
Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

Application No. 10/620,898
Response to Office Action

Customer No. 01933

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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